BURTON'S ZANZIBAR

Zanzibar: City, Island, and Coast. By Richard F. Burton. In 2 vols. (London: J. Murray, 1872.)

IN these two bulky volumes Captain Burton gives us, after a lapse of thirteen to sixteen years, a narrative of his adventures and explorations in the island of Zanzibar, the neighbouring smaller islands, the adjacent coast of the mainland, and the Highlands of Eastern Africa intervening between the coast and the great Victoria N'yanza, the publication having been delayed by a series of remarkable accidents. As in everything else that Captain Burton has written, the volumes are full of graphic delineations of the natural features and inhabitants of the country, combined with not a few details of a personal character which have not the same interest for the general reader.

In 1856 Captain Burton laid before the Royal Geographical Society his desire once more to explore Equatorial Africa; a committee was formed to assist him in his undertaking, a grant of 1,000*l.* was obtained from Lord Clarendon, then Secretary of State for Foreign Affairs, and on September 16th the enterprising traveller received formal permission, "in compliance with the request of the Royal Geographical Society, to be absent from duty as a regimental officer under the patronage of Her Majesty's Government, to be despatched into Equatorial Africa, for a period not exceeding two years, calculated from the date of departure from Bombay, upon the pay and allowances of his rank." On December 26th in that year he landed at Zanzibar, the first view of which is thus attractively described:—

> "Earth, sea, and sky, all seemed wrapped in a soft and sensuous repose, in the tranquil life of the Lotos-eaters, in the swoon-like slumber of the Seven Sleepers, in the dreams of the Castle of Indolence. The sea of purest sapphire, which had not parted with its blue rays to the atmosphere—a frequent appearance near the equator—lay basking, lazy as the tropical man, under a blaze of sunshine which touched every object with a dull burnish of gold. The wave had hardly energy enough to dandle us, or to cream with snowy foam the yellow sandstrip which separated it from the underwood of dark metallic green. The breath of the ocean would hardly take the trouble to ruffle the fronds of the palm, which sprang like a living column, graceful and luxuriant, high above its subject growths. The bell-shaped convolvulus (*Ipomœa maritima*), supported by its juicy bed of greenery, had opened its pink eyes to the light of day, but was languidly closing them, as though gazing on the face of heaven were too much exertion. The island itself seemed over-indolent and unwilling to rise; it showed no trace of mountain or crag, but all was voluptuous with gentle swellings, with the rounded contours of the girl-negress, and the brown-red tintage of its warm skin showed through its gauzy attire of green. And over all bent lovingly a dome of glowing azure, reflecting its splendours upon the nether world, whilst every feature was hazy and mellow, as if viewed through 'woven air,' and not through vulgar atmosphere."

A residence, however, of some months in the island by no means established the impression which its first appearance might convey, of its being a terrestrial paradise. The city of Zanzibar itself is a miserable, ill-built place, fœtid and unhealthy; while the personal appearance and habits of the natives are repulsive in the extreme. The climate is remarkably uniform as to temperature, the result of nine months' observation showing a range of 18°—19° F. only. The medium temperature of January is 83·5°; of February, the hottest month in the year, about 85°; and the mean gradually declines till July, the coolest month, 77°. The mean average of the year is between 79° and 80°. The barometer is almost uniformly sluggish and quiescent, a few tenths above or below 30 in. representing the maximum variation, even under the influence of a tornado. Uniform, however, as is the temperature, the degree of humidity of the atmosphere varies excessively. At certain seasons the amount of moisture exceeds that of the dampest parts of India, and the annual rain-fall is in some years double that of Bombay, varying from 100 to 167 inches. The Msika, or principal rainy season, lasts from April to June; the island is enveloped in a blue mist, and the interior becomes a hot-bed of disease; the hair and skin are dank and sodden; shoes exposed to the air soon fall to pieces; paper runs and furniture sweats; the houses leak; books and papers are pasted together; ink is covered with green fur; linens and cottons grow mouldy; and broadcloths stiffen and become boardy. This excess of damp is occasionally varied by the extreme of dryness. During the prevalence of the dry wind cotton cloth feels hard and crisp, books and papers curl up and crack, and even the water is cooled by the excessive evaporation. Earthquakes are all but unknown in Zanzibar, a single shock being recorded as having been felt in 1846. Tornadoes are frequent, but the cyclones and hurricanes of the East Indian islands rarely extend to this coast. During fourteen years there was but one tourbillon strong enough to uproot a cocoa-nut tree.

The prosperity of Zanzibar depends almost entirely on its vegetable productions, and chiefly on the cocoa-nut and the clove. The former supplies the natives with nearly all their wants—food, wine, spirit, cords, mats, strainers, tinder, firewood, timber for houses and palings, boats and sails; and Captain Burton calculates that in 1856 12,000,000 nuts were exported for the soap and candle trades. The sugar-cane might be grown to great advantage, but for the constitutional indolence of the inhabitants. Cotton has been tried, but does not thrive; and coffee has not been cultivated to any extent. The fruits in greatest request by the islanders are the mango, the orange, the banana or plantain, the pine-apple, and the bread-fruit—all, however, with the exception of the banana and an inferior kind of orange, being introduced exotics; the pine-apple has become perfectly naturalised. The most important production of the island is the clove, which does not, however, produce crops comparable to those of the East Indies either in quantity or quality, owing to want of skill and intelligence in its cultivation. The copal of commerce is obtained chiefly from the neighbourhood of Saadani, on the opposite coast of the mainland; and Captain Burton entirely confirms the account of its production already communicated to the Linnean Society by Dr. Kirk, that it is a gum, or resin, exuding from wounds in the stem of a small tree or large shrub (*Hymenæa verrucosa*) belonging to the order Leguminosæ.

Captain Burton's first expedition from Zanzibar was to the smaller island of Pemba, lying to the north, and thence to Mombasah, on the coast 4° south of the line, the capital of Northern Zanzibar, the best harbour on the Zanzibar coast, land-locked by coral islands. The town itself is built on the largest of these islands, where the climate is

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hotter, drier, and healthier than that of Zanzibar. Here he did not attempt to strike inland, the weather and the hostility of the native tribes being unfavourable, but returned along the coast southwards to Pangani, and thence inland to Fuga, the capital "city" of Usambara, in the Highlands of Eastern Africa. In order to gain a complete knowledge of the Zanzibar coast, he also paid a visit to the island and port of Kilwa, situated beneath the ninth degree of south latitude. Here are the remains of an ancient town of considerable size, with respect to which many legends are current among the natives; but the gradual sinking of the coast has rendered the ancient site uninhabitable. Although at the present time a miserable and fœtid collection of squalid huts, Kilwa was found in 1500 by the Portuguese a town of great prosperity, the capital of Southern Zanzibar, and ruling the coast as far as Mozambique and Sofala; but the curses of European wars and the slave-trade have desolated the once thriving country. Captain Burton does not think very highly of the so-called "free labour" system, which he terms "the latest and most civilised form of slavery in East and West Africa."

The most important expedition made by Captain Burton was, however, that undertaken between 1857 and 1859 to Kazeh in the Ukimbu district, upwards of 500 miles from the coast, and about 2° south of the southern shore of the great Victoria N'yanza, in company with Captain Speke. But as this journey has already been illustrated in his own "Lake Regions of Central Africa," and the country has been further described by Colonel Grant and Captain Speke, he does not again enter into details respecting it; but thus sums up what he considers its geographical results:—"That the Boringo is a lake distinct from the 'Victoria N'yanza' with a northern effluent the Nyarus, and therefore it is fresh water; that the N'yanza, Ukara, Ukerewe, Garawa, or Bahari y a Pili, is a long narrow formation, perhaps thirty miles broad, and 240 miles in circumference, and possibly drained to the Nile by a navigable channel; that the N'yanza is a water, possibly a swamp, but evidently distinct from the two mentioned above, flooding the lands to the south, showing no signs of depth, and swelling during the low season of the Nile, and *vice versâ;* and that the northern and north-western portions of the so-called 'Victoria N'yanza' must be divided into three independent broads or lakes, one of them marshy, reed-margined, and probably shallow, in order to account for the three effluents within a little more than sixty miles."

The botanical results of this journey are about to be illustrated by Colonel Grant, in a magnificent volume, to be published by the Linnean Society, which it is understood will be illustrated by 600 plates, the cost of which will be defrayed entirely by the gallant author.

One chapter is devoted to a sketch of the labours of Captain Burton's old comrade, Captain Speke. Though tribute is here paid to his many excellent qualities, we regret to be again introduced to the details of the estrangement which grew up between the explorers, culminating at the meeting of the British Association at Bath, when the two companions in arms met as strangers, advocates of two rival "Nile-theories," as to the origin of the Father of rivers.

In the Appendices, Captain Burton gives some useful details of the meteorology, commerce, &c., of Zanzibar. A well-executed map helps to illustrate the author's journeys, without a constant reference to which the narrative is by no means clear; but we cannot commend the style in which the woodcuts interspersed here and there are executed.

OUR BOOK SHELF

Deschanel's Natural Philosophy. By Prof. Everett. Part III., Electricity and Magnetism. (London and Edinburgh: Blackie and Son.)

IN the Preface by the translator of the present volume, it is said, with much truth, that "the accurate method of treating electrical subjects, which has been established in this country by Sir W. Thomson and his coadjutors, has not yet been adopted in France; and some of Faraday's electromagnetic work appears still to be very imperfectly appreciated by French writers." Accordingly we find that the translator has added a considerable amount of matter, and more especially two important chapters, one on the electrical potential and lines of electric force, and the other on electrometers, together with an appendix on electrical and magnetic units. Dr. Everett has thus considerably improved a book, which, in its original form, was already a good one. The ordinary branches of the subject are unfolded, the plates are good, and the explanations are full and clear. The portion devoted to magnetism is in this, as apparently in all such general treatises on natural philosophy, considerably the most defective part, and especially in the sections which relate to terrestrial magnetism. The whole of that question is most insufficiently dealt with. The treatment of the secular changes in the magnetic elements is confined to twelve lines, where it is said that "declination and dip vary greatly, not only from place to place, but from time to time;" but from which we should expect that the unlearned reader would be led into the error that intensity is uniform. Then, again, the vast subject of changes in the elements, such as are not secular, is confined to one short paragraph, headed "Magnetic Storms"! The intrinsic importance of the subject of terrestrial magnetism, and the great and increasing interest attaching to it, no less than the extreme beauty of many of its investigations and results, entitle it to a much larger notice than the very imperfect one in this volume. The chapter on the Telegraph contains useful matter, and especially a description of an autographic telegraph, an instrument which, while interesting and ingenious, has not often found its way into such treatises. We miss such points as how to find the locality of a fault in a telegraph wire, which we might the more expect to see treated of when we consider the full explanation which is given of Ohm's laws, and when we see such elaborate details as to some telegraphic instruments as are entered into in the chapter in question. The chapters on the heating effects of currents, and on electrolysis, are clear. The question of electromotive force, and of the means of determining it, might have been entered into more fully; and, generally, from the character of the chapter on the potential, we might have expected to see a little more introduced concerning points which may be elucidated by the application of the principle of the conservation of energy. JAMES STUART

Medizinische Jahrbücher, herausgegeben von der k. k. Gesellschaft der Ärzte, redigirt von S. Stricker. Jahrgang 1871. Heft iv. Mit 4 Holzschnitten. (Wien: 1871.)

THIS part, which concludes the first volume of Stricker's Jahrbuch, contains: (1) Researches on the Inorganic Constituents of the Blood, by Adolph Jarisch. Jarisch gives the details of an improved method by which blood can be

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